I. Amendments to the Claims

Claims 1-31 (cancelled).

Claim 32 (currently amended): An antibody ~~isolated by a method of producing an antibody~~ of predetermined specificity~~, said~~ **obtained by a** method comprising the steps of:

(a) synthesizing a V_H-coding gene library containing a plurality of different V_H-coding DNA sequences by a method comprising the steps:

(i) preparing a polynucleotide containing composition, wherein at least a portion of the polynucleotides in said composition comprise a plurality of ~~difference~~ **different** V_H-coding sequences,

(ii) amplifying ~~a~~ **said** plurality of V_H-coding sequences in said polynucleotide containing composition;

(b) synthesizing a V_L-coding gene library containing a plurality of different V_L-coding DNA sequences by a method comprising the steps:

(i) preparing a polynucleotide containing composition, wherein at least a portion of the polynucleotides in said composition comprise a plurality of different V_L-coding sequences,

(ii) amplifying ~~a~~ **said** plurality of V_L-coding sequences in said polynucleotide containing composition;

(c) joining in operable combination V_H-coding sequences from said V_H-coding gene library with V_L-coding sequences from said V_L-coding gene library into expression vectors as to be able to coexpress a V_H-coding sequence and a V_L-coding sequence from each vector, whereby a diverse library is formed;

(d) selecting and isolating from said diverse library at least one coexpression vector capable of producing polypeptides having the desired specificity;

(e) transforming a host cell with said expression vector; and

(f) isolating an antibody encoded by said vector from said host cell.

Claim 33 (previously added): The antibody according to Claim 32, wherein said antibody is a catalytic antibody.

Claim 34 (currently amended): An antibody ~~isolated by a method~~ of ~~producing~~ predetermined specificity~~, said~~ **obtained by a** method comprising the steps of:

(a) preparing a first polynucleotide containing composition, wherein at least a portion of the polynucleotides in said first polynucleotide containing composition comprise a plurality of V_H-coding sequences;

(b) amplifying ~~a~~ **said** plurality of V_H-coding sequences from said first polynucleotide containing composition by a method of amplification comprising the steps of adding primer sequences capable of hybridizing upstream and downstream from a plurality of said V_H-coding sequences under conditions permitting hybridization to occur, whereby a plurality of amplified V_H-coding sequences are produced and said amplified V_H-coding sequences form a V_H-coding library;

(c) preparing a second polynucleotide containing composition, wherein at least a portion of the polynucleotides in said second polynucleotide containing composition comprise a plurality of V_L-coding sequences;

(d) amplifying ~~a~~ **said** plurality of V_L-coding sequences from said second polynucleotide containing composition by a method of amplification comprising the step of adding primer sequences capable of hybridizing upstream and downstream from a plurality of said V_L-coding sequences under conditions permitting hybridization to occur, whereby a plurality of amplified V_L-coding sequences are produced and said amplified V_L-coding sequences form a V_L-coding library;

(e) joining in operable combination V_H-coding sequences from said V_H-coding library with V_L-coding sequences from said V_L-coding library into expression vectors so as to be able to coexpress a V_H-coding sequence and a V_L-coding sequence from each vector, whereby a diverse library is formed;

(f) selecting and isolating from said diverse library at least one coexpression vector capable of producing antibodies having the desired specificity;

(g) transforming a host cell with said expression vector; and

(h) isolating an antibody encoded by said vector from said host cell.

Claim 35 (previously added): The antibody according to Claim 34, wherein said antibody is a catalytic antibody.

Claim 36 (currently amended): An antibody ~~isolated by a method of producing an antibody molecule~~ of predetermined specificity~~, said~~ **obtained by a** method comprising the steps of:

(a) producing a V_H-coding library and a V_L-coding library, by a method comprising the steps of:

(i) adding a first primer, wherein said first primer is capable of hybridizing to a first conserved nucleotide sequence substantially adjacent to a plurality of V_H-coding and V_L-coding sequences, and said coding sequences are present in a polynucleotide containing composition that comprises a plurality of different V_H-coding sequences and V_L-coding sequences,

(ii) adding a second primer to said nucleotide containing composition, wherein said second primer is capable of hybridizing to a second conserved nucleotide sequence substantially adjacent to a plurality of V_H-coding and V_L-coding sequences and said second conserved nucleotide sequence is not adjacent to said first conserved nucleotide sequence;

(b) joining in operable combination V_H-coding sequences from said V_H-coding gene library with V_L-coding sequences from said V_L-coding gene library into expression vectors so as to be able to coexpress a V_H-coding sequence and a V_L-coding sequence from each vector, whereby a diverse library is formed;

(c) selecting and isolating from said diverse library at least one coexpression vector capable of producing polypeptides having the desired specificity;

(d) transforming a host cell with said expression vector; and

(e) isolating an antibody encoded by said vector from said host cell.

Claim 37 (previously added): The antibody according to Claim 36, wherein said antibody is a catalytic antibody.

Claim 38 (currently amended): An antibody comprising a V_H domain and a V_L domain, which domains are ~~not encoded together in the genome of a single naturally occurring cell, said antibody being~~ obtained from a genetic library which encodes a plurality of diverse V_H and V_L encoding sequences joined in operable combination and formed by random combination of cloned V_H **encoding sequences carried by a prokaryotic replicon** ~~domain~~ and V_L encoding sequences **carried by a prokaryotic replicon**.

Claim 39 (previously added): The antibody of Claim 38, wherein said genetic library comprises at least 10,000 diverse V_H and V_L encoding sequences joined in operable combination.

Claims 40-42 (cancelled).

Claim 43 (currently amended): ~~The~~ **An** antibody ~~is~~ obtained ~~by the method of Claim 42~~ **by a method comprising the steps of:**

(a) providing a genetic library comprising a plurality of diverse V_H and V_L encoding sequences in which each member of the library has a V_H and a V_L encoding sequence joined in an operable combination;

(b) screening said library with an antigen; and

(c) selecting an antibody capable of binding said antigen.

Claim 44 (cancelled).